

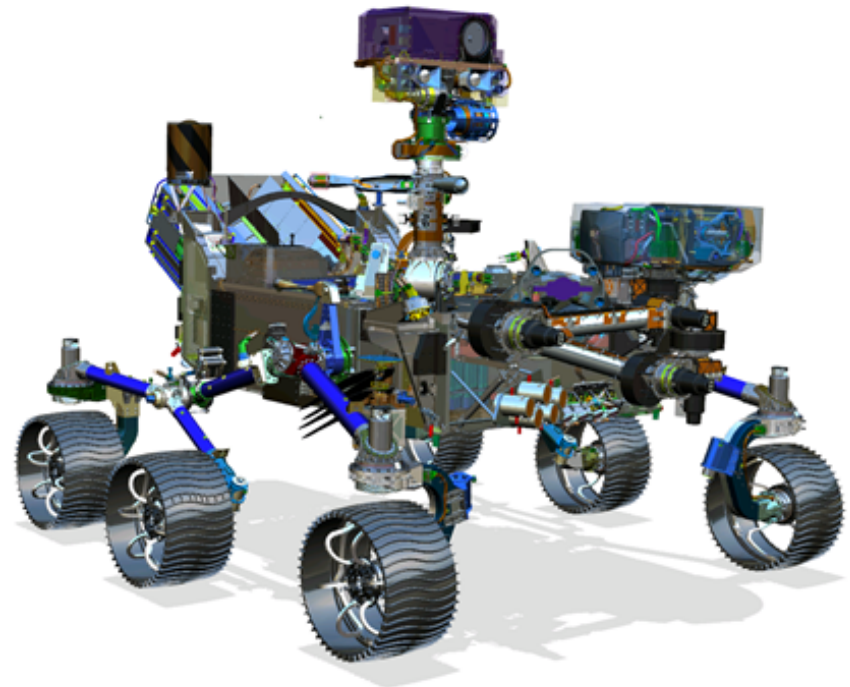


Jet Propulsion Laboratory
California Institute of Technology

Mars 2020 Project

Mars 2020 – General Dynamics Visit August 21, 2018

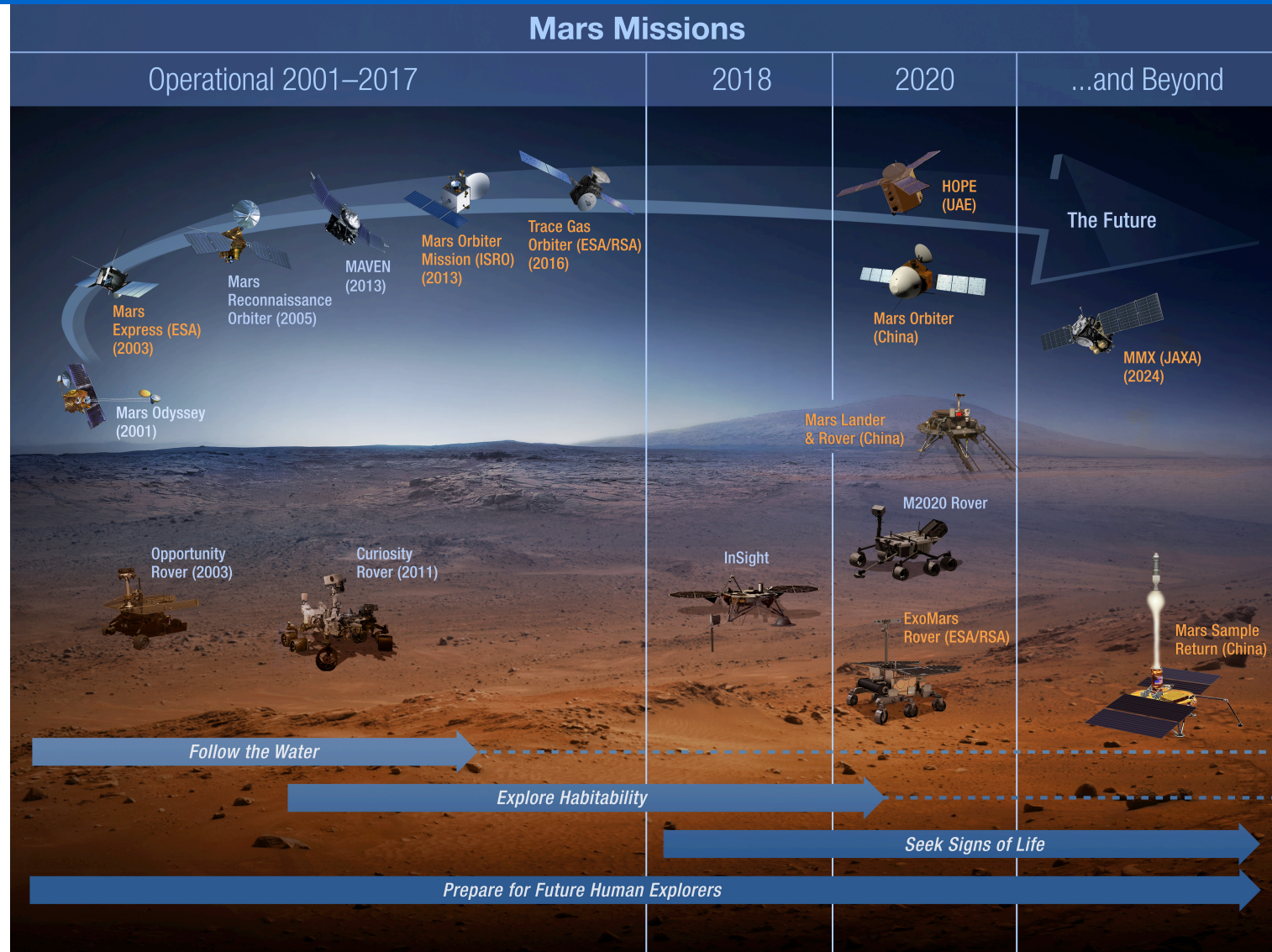
Prepared by:
Jeff Srinivasan, Deputy Spacecraft Mgr





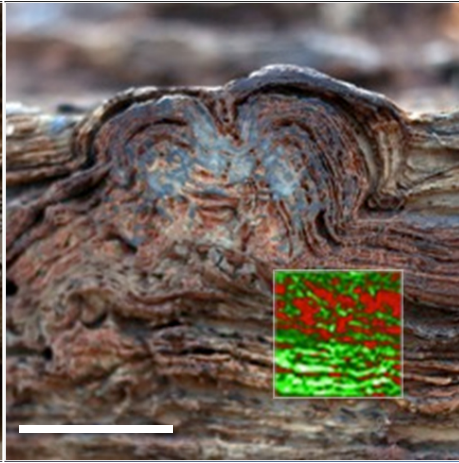
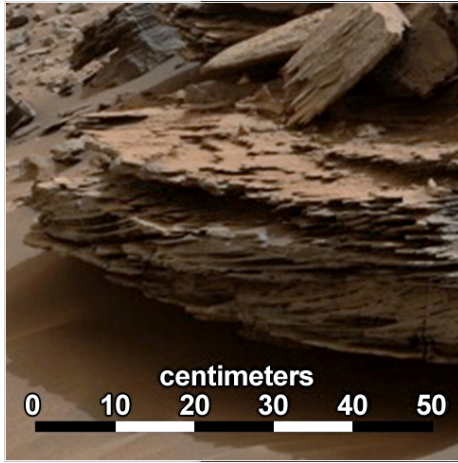
Current and Future Mars Missions

Mars 2020 Project



Mars 2020 Mission Objectives

Mars 2020 Project



GEOLOGY

- Explore an ancient environment on Mars
- Understand processes of formation and alteration

ASTROBIOLOGY

- Assess habitability of ancient environment
- Seek evidence of past life
- Select sampling locations with high biosignature preservation potential

SAMPLING

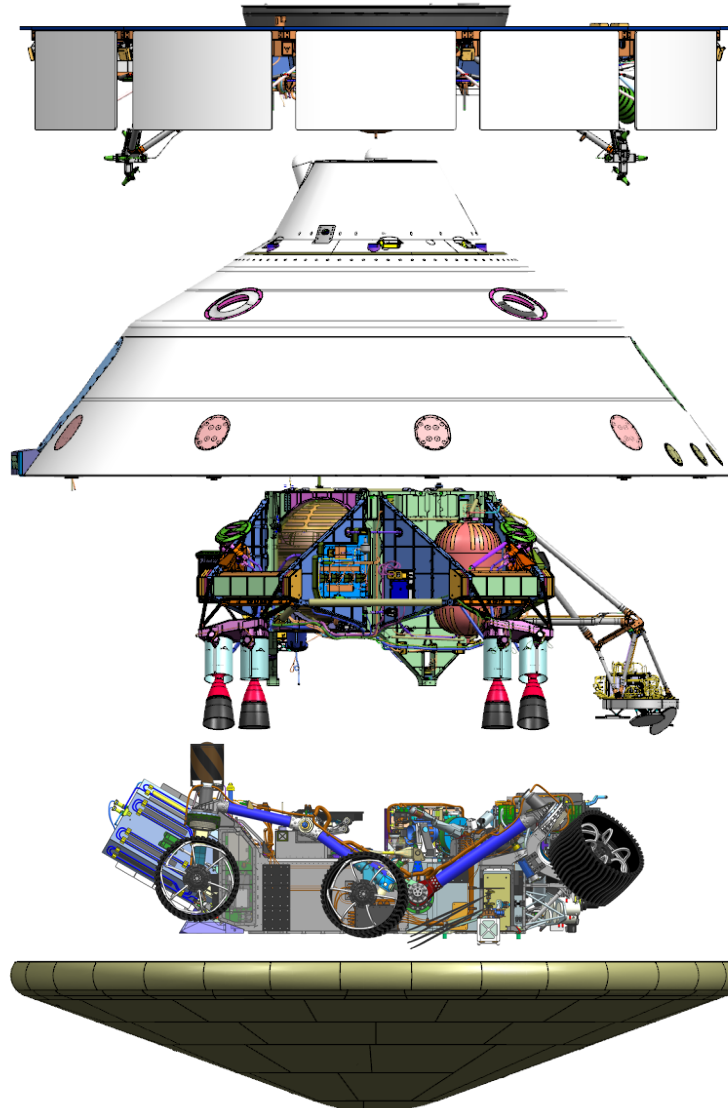
- Capability to collect ~40 samples and blanks, 20 in prime mission
- Include geologic diversity
- Deposit samples on the surface for possible return

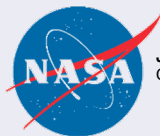
PREPARE FOR HUMANS

- Measure temperature, humidity, wind, and dust environment
- Demonstrate In Situ Resource Utilization by converting atmospheric CO₂ to O₂



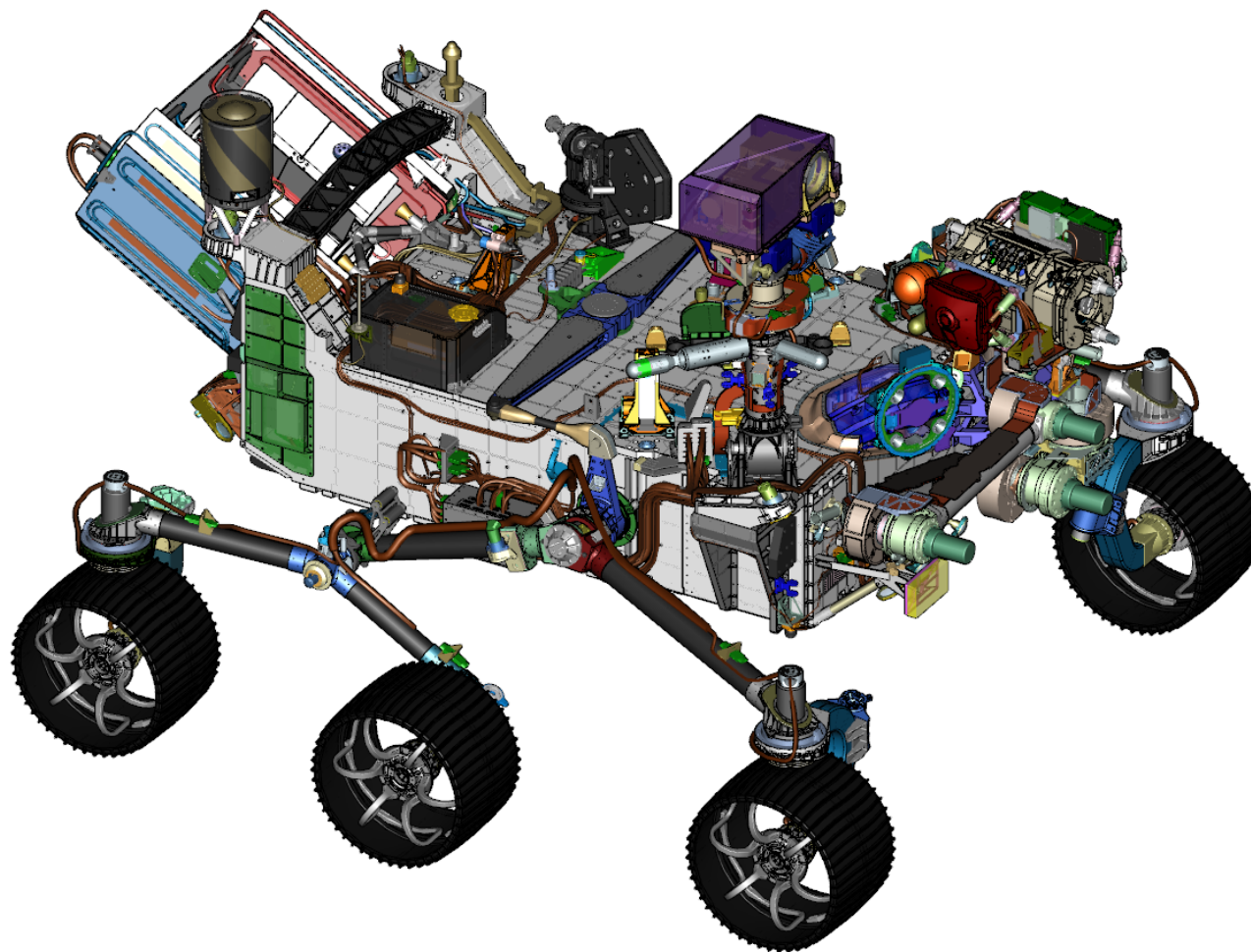
Mars 2020 Spacecraft





Mars 2020 Rover

Mars 2020 Project



Mars 2020 Rover Belly Electronics

Mars 2020 Project



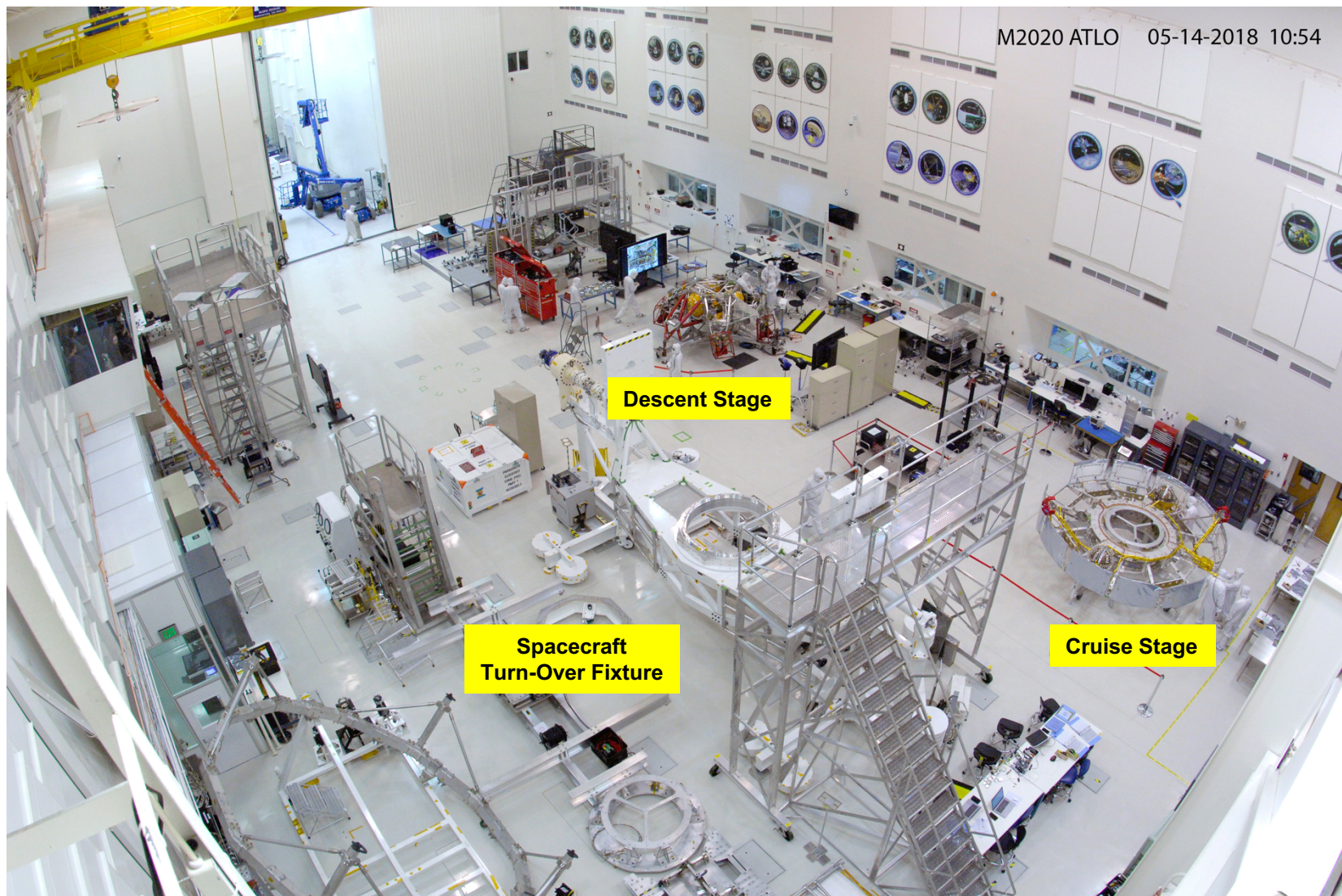
October 31, 2018

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Mars 2020 ATLO Floor

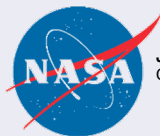
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Rover Round Wire Harness Fabrication on Mock-Up

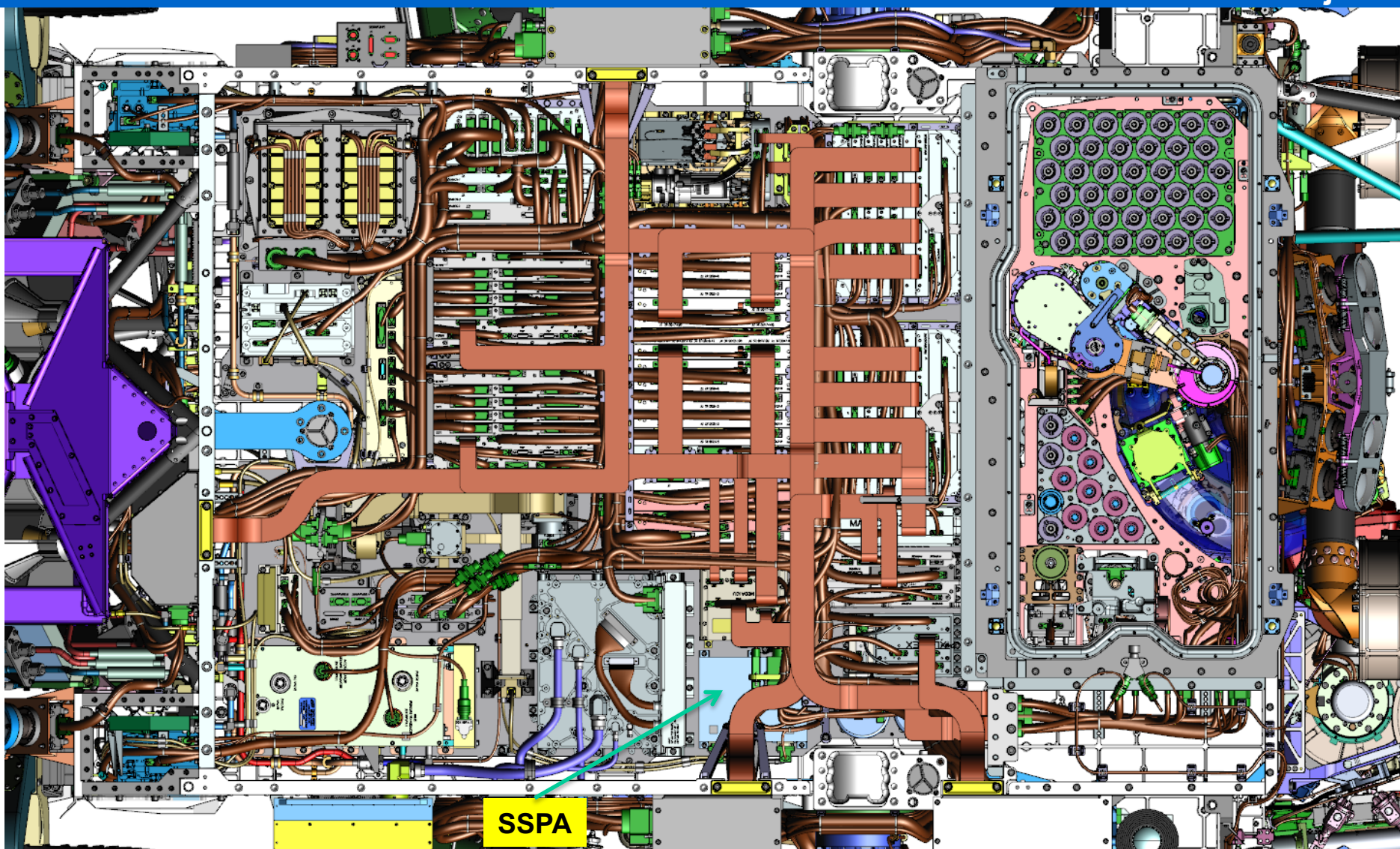
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SSPA Mass Model

Rover Flex Harness

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